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ABSTRACT

PG-TRAK90 is a cluster-based geographic marketing system designed by Maryland's Prince George's Community College (PGCC) to maximize educational marketing objectives. To create it, United States Census Bureau files containing over 200 demographic, housing, and lifecycle variables for 172 tracts in Prince George County (PGC) were reformatted into marketing-style indicators and subjected to a statistical sorting technique known as cluster analysis. The result was a typology of PGC neighborhoods sorted into 22 clusters based on geographic, socioeconomic, and ethnic categories, including the mostly white, upscale business executives in the "exurbs"; Black Middle America; and the inner suburban mix of young Black and Hispanic families, among others. To determine how well PGCC draws students from across this demographic spectrum, clusters-in-the-county were compared to clusters-in-the-student-body revealing that as of 1990, the student body closely mirrored the county demographics. An analysis of market penetration by cluster revealed that upscale groups sent proportionally more students to PGCC than downscale clusters. Credit versus non-credit course markets were also analyzed for 1985-90, indicating similar proportions of enrollment by cluster in both types of courses. PG-TRAK90 is incorporated directly into PGCC's student recruitment efforts and will provide critical market analysis and contact targeting. (KP)

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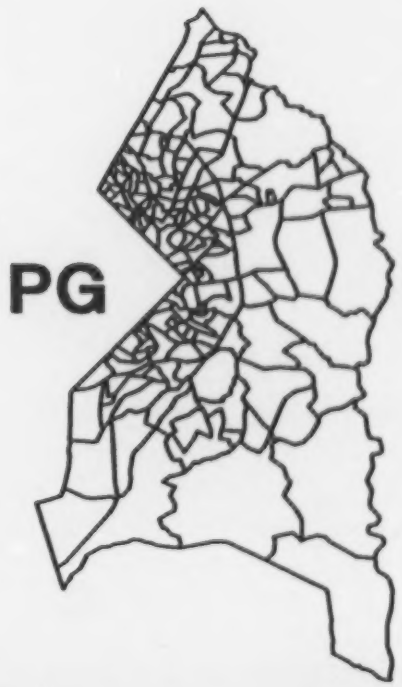
What is PG-TRAK^{90}©?

An Introduction to PGCC's Lifestyle Cluster System For Student Recruitment Targeting and Enrollment Analysis



PG TRAK^{90}©

JC 930 336

Prince George's Community College
Office of Institutional Research and Analysis

Market Analysis MA94-1
August 1993

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PRINCE GEORGE'S COMMUNITY COLLEGE
Office of Institutional Research and Analysis

WHAT IS *PG-TRAK*^{90}© ?

AN INTRODUCTION TO PGCC's LIFESTYLE CLUSTER SYSTEM FOR STUDENT RECRUITMENT TARGETING AND ENROLLMENT ANALYSIS

Market Analysis MA94-1
August 1993

Introduction

Like many other two-year public institutions since the late 1980s, Prince George's Community College has found itself in a complex of enrollment-related difficulties: rising costs, declining public financial support, a static FTE trend line and an untargeted student recruitment process. In response, the College decided to end its reliance on mass mailings of class schedules and high school site visitation and to move toward a modern market segment approach. Unfortunately, commercial marketing systems proved simply unaffordable. Unwilling to abandon its decision, PGCC explored a "roll your own" solution.

Thus PGCC's Office of Institutional Research and Analysis came to design PG-TRAK^{90} -- our very own neighborhood lifestyle cluster system. It was modeled upon Claritas Corporation's national geo-demographic analysis system PRIZM™, but departed from this standard by emphasizing educational marketing measures and by using an exclusively County database. This report discusses PG-TRAK^{90}'s geo-demographic underpinnings and development and reviews the most student recruitment-relevant findings from cluster market analyses of the County population and College student body.

What is Geo-Demographic Analysis?

Geo-demography was pioneered in the 1970s by former Census Bureau statistician Jonathan Robbin, who went on to found Claritas Corporation. The geo-demographic approach to marketing begins with the insight that birds of a feather flock together. That is, people sharing similar demographic, socio-economic and life-cycle attributes, cultural and political attitudes, and patterns of social and consumer behavior -- in short, lifestyle -- tend to live near each other and create roughly homogeneous neighborhoods. Thus, one can indirectly but effectively market individuals by marketing whole neighborhoods, once a typology of neighborhoods has been worked out and the market analyzed by neighborhood type.

The Census Bureau equivalent of neighborhood is Census tract. In these computer-driven days, it is a relatively easy and inexpensive matter to append tract codes to the addresses in customer lists and to market analyze such lists by Census tract. If for a certain market territory (e.g., Prince George's County) tracts have been sorted into a geo-demographic lifestyle typology of neighborhoods, then tract analysis equals analysis by lifestyle clusters of neighborhoods. Cluster analysis sets up the marketer for targeting analysis (Which clusters have been the best past performers? Which ought to be performing better given the nature of the product/service?). This leads readily to message development (Which messages will be most motivating given the particular lifestyles of targeted clusters?). There remains only target location and access. Geo-demographics shines here too, because prospective customer addresses and phone lists selected by tract are easily obtainable from list brokers.

PG-TRAK^{90}: Development and Operation

PG-TRAK^{90} is a full-featured geographic marketing system, capable of all of the above, only customized to maximize educational marketing objectives within a restricted geographic locale. To create it, the Office of Institutional Research and Analysis obtained U.S. Census Bureau file STF-1 and STF-3a containing over 200 demographic, housing and life-cycle variables for every one of the 172 tracts making up Prince George's County in 1990.[1] These data were re-formatted into marketing-style indicators and subjected to a statistical sorting technique known as cluster analysis. The procedure groups individual cases into a set of clusters according maximum similarity across all indicators within each cluster, but also maximum indicator dissimilarity across all clusters.[2] The last step was minor re-organization of the raw cluster results to highlight cluster characteristics most pertinent to educational marketing.

The result was the emergence of a typology of Prince George's County neighborhoods (tracts) sorted into 22 clusters, which will be described in the next section. PG-TRAK^{90} can be looked at as a pre-established segmentation of the County into 22 standing markets, the basic needs and motivations of which have already been worked out. Households with potential new students can be efficiently reached by targeting only those cluster markets believed rich in the sort of possible enrollees sought, and by mailing/phoning a quota of households within them. Mail/phone lists can be easily acquired from commercial list brokers whose data bases typically append Census tract codes to each household address and phone number. Furthermore, the messages and scripts used in direct contact can be custom-tailored for maximum appeal to each cluster since each incorporates a well understood lifestyle.

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[1] OIRA had previously developed an experimental predecessor to PG-TRAK^{90} -- PG-TRAK -- created along similar lines but based on 1980 Census data updated by commercial firms. Some early OIRA reports on student recruitment and enrollment analysis rested on this earlier version.

[2] Technically, we used SPSS/PC+'s cluster analysis program with squared Euclidean distance measures and Ward's approach to agglomeration.

Determining which clusters-in-the-County to target in the future depends upon an analysis of the clusters-in-the-student-body and their past behavior. To accomplish this, PG-TRAK^{90} maintains a second database consisting of a list of almost 100,000 of PGCC's students (all those taking at least one course during the fiscal years 1985-1990) which has been tract-encoded and sorted by PG-TRAK^{90} cluster. This provides us with a customer base cluster system exactly paralleling the County cluster system. By analyzing the cluster-coded list (now being updated to include all students through Spring 1993) we can establish which clusters historically have provided disproportions of students of whatever personal characteristic or by whichever academic category.

Then, we can plan a rational market stimulation program to increase the numbers of the desired type by contacting County households only from those high performing clusters. This is the market inflation strategy of targeting. Or under certain circumstances we might find it better to target those poorer performing clusters whose lifestyle characteristics suggest an unrealized potential. This is the market broadening approach. Whichever strategy is selected, PG-TRAK^{90} allows the actual selection of household targets to be based on a precise analysis of the existing customer base. The main body of this report presents examples of just this sort of analysis.

Finally, for added user convenience, the 22 *lifestyle clusters* basic to the system were re-aggregated into fifteen more general *cluster blocks* which in turn were organized into seven broad *geo-demographic zones*. This arrangement clarifies the meaning of each cluster by contextualizing it within the overall sociology of the County. It also has the advantage of establishing ready-made cluster aggregations for those marketing applications needing less precision or utilizing cross-cluster message groups. In fact, to save space and words, we will take advantage of this tier feature by reporting cluster results in the rest of this paper exclusively at the cluster block (CB) level.

Clusters-in-the-County and Clusters-in-the-Student Body

The great diversity of Prince George's population is reflected in the results of our cluster analysis of the demographic, economic and housing data of the county's 172 Census tracts. Fully twenty-two distinctive neighborhood clusters emerged. Table 1 (next page) provides capsule descriptions of the cluster results, for convenience at the more abbreviated 15-unit cluster block level. The table also displays how the county's 258,011 households actually divide up by cluster blocks:

Zone	Cluster Block Abbreviated Descriptions and Percentage Household Shares (County = 258,051 Households)		Percent County Households
Upscale Outer Suburbs 15.6%	B01 - Exurban Dream	Mostly white, upscale exurbs/Business executives predominate/Many "Empty Nest" families/Large lots	11.3%
	B02 - Black Enterprise	Very upscale majority black suburbs/New high value tracts/Federal workers common/ Large families	4.3%
Midscale Central Suburbs 18.6%	B03 - Beltway Havens	Aging, mostly white families in nice but older tracts off I-95/High incomes, elite blue collars/ Few college grads	4.7%
	B04 - New Collar Condos	Singles, new families in apts. and condos/ Professionals, technicians, entry level incomes/ New hi-tech firms	13.9%
Low Midscale Central Suburbs 9.8%	B05 - Black Middle America	Mostly large black families in median tract housing off I-95/Average incomes, education, jobs/Gov't workers	9.8%
Low Midscale Rural 9.0%	B06 - Rural Development	Large families, modest tract housing in developing rural areas/Well-paid lower white and upper blue collars	8.1%
	B07 - Fort George	Military Installations/Barracks Quarters	0.9%
Upscale Inner Suburbs 4.3%	B08 - Cosmopolitans	Inner-suburb renting upscale professionals/ "Bohemian" areas, white majority but many Blacks, Asians, Latinos	3.4%
	B09 - Asians Plus	One-third Asian Immigrant/Below average income but highest percent college grads and grad students/Young apt. dwellers	0.3%
	B10 - Town and Gown	Mostly higher educational institutions and adjacent neighborhoods/Large student dormitory population	0.6%
Low Midscale Inner Suburbs 10.4%	B11 - Minority Comers	Black renting singles, new families/Lower white and upper blue collar entry level/ Many in college, job training	6.0%
	B12 - Old P.G. County	Lower midscale mix of renting young single and home-owning elderly whites/Old inner-suburban housing stock	4.4%
Downscale Inner Suburbs 32.4%	B13 - Blue Collar Blacks	Mostly low young black renters/Steady but low paying blue collar jobs/Many children, female-headed households	15.5%
	B14 - Afro-Latin Mix	Inner-suburban Mix of growing young black, Hispanic families/Little income, education/ Some home-owning	7.1%
	B15 - Minority Struggle	Solidly black inner-suburbs/Unmarried singles with children modal family/Significant unemployment, poverty	9.8%

Table 1

The single largest CB proved to be Blue Collar Blacks (15.5 percent), together with Afro-Latin Mix and Minority Struggle, one of three downscale mostly African-American inner-suburban segments which together define around 33 percent of all households. Socio-economically balancing these were three mid-to-upscale minority CBs (Black Enterprise, Black Middle America, Minority Comers) which together include about 20 percent of all households. In fact, one of them -- Black Enterprise -- led all PG-TRAK[90] clusters in terms of median household income and percent white collar workers. These prosperous black neighborhoods make Prince George's practically unique among U.S. counties: majority non-white but also essentially middle class suburban in character.

The second largest CB turned out to be New Collar Condos (13.9 percent), one of four mostly white central suburban/exurban segments (also including Exurban Dream, Beltway Havens and Rural Development -- 38 percent, collectively). The numerical strength of New Collar Condos reflects the County's participation in the national economic shift to hi-tech service jobs. But the strong presence of the other three shows that the traditional white collar/white race suburbs are still well represented here. Also, on the margins of this grouping is Fort George (0.9 percent), a cluster of military families centering on Andrews Air Force Base.

Lastly, our clusterization detected an interesting miscellany of inner-suburban neighborhood types. The mostly white inner-suburbs were represented by the culture-oriented, sophisticated renters of the Cosmopolitan cluster block (3.4 percent), the student dormitory dwellers of Town & Gown (.6 percent) and the remnants of the yesteryear's white blue collar suburbs in Old P.G. County (4.4). And, following the national demographic trend, two clusters emerged (Afro-Latin Mix and Asians Plus) which house a discernable and growing proportion of Third World immigrants.

These then are Prince George's Community College's standing educational sub-markets. How well has PGCC been doing drawing students from across this demographic kaleidoscope of populations? Figure 1 (next page) helps us to an answer by providing matched comparisons of the proportional weights of the clusters both in-the-County and in-the-student body. Student cluster percentages are derived from an analysis of a database including all 1984-1990 PGCC course-takers, both credit and non-credit. Clusters are shown rank-ordered high/low according to County cluster household percentage. The story told here is clear. There exists an excellent rough-and-ready fit between student cluster and County cluster percentages.

This is very welcome news from a college mission perspective. Community colleges historically were established to democratize higher education. Providing access to college-level training to all groups -- poor as well as rich, non-white as well as white --is our main educational *raison d'etre*. And in this, PGCC seems to be succeeding admirably. At least for the last half-decade, our student body has been a fairly undistorted reflection of our service area's demography.

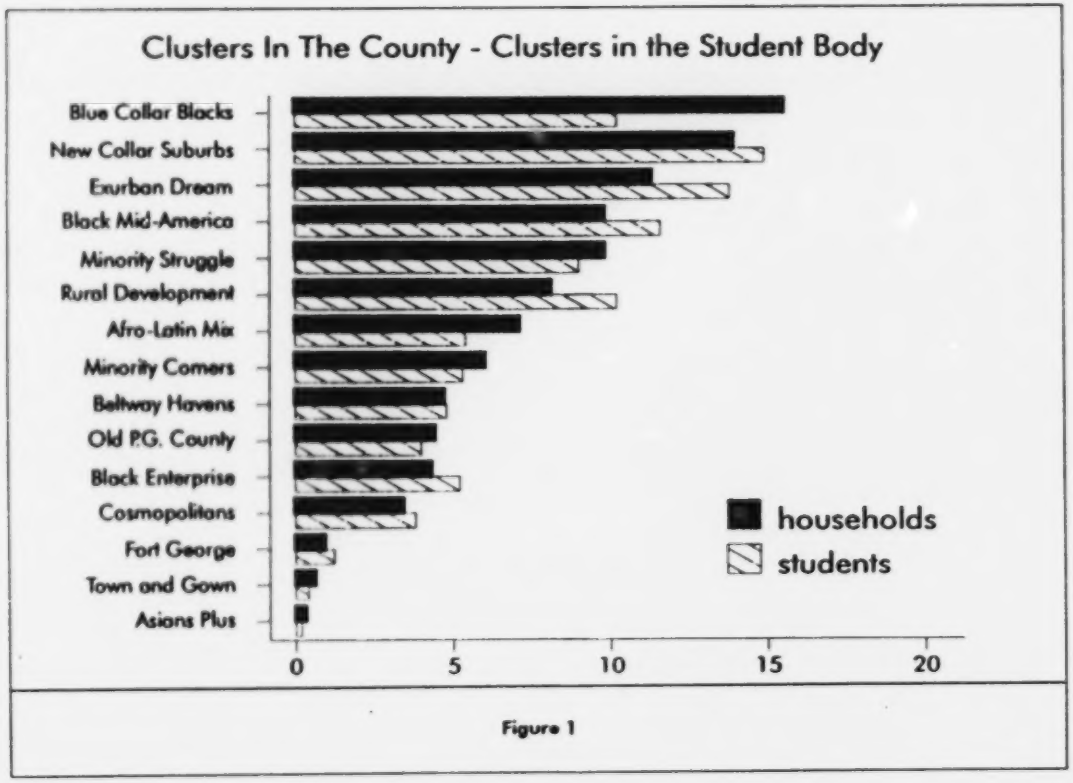
Clusters In The County - Clusters in the Student Body
Blue Collar Blacks
New Collar Suburbs
Exurban Dream
Black Mid-America
Minority Struggle
Rural Development
Afro-Latin Mix
Minority Corners
Beltway Havens
Old P.G. County
Black Enterprise
Cosmopolitans
Fort George
Town and Gown
Asians Plus
households
students
0
5
10
15
20

Figure 1

But for the educational marketer, the finding that PGCC has been doing "pretty good" everywhere is not very helpful. The marketer needs information on the relative "underages" and "overages" in product or service sales to various market segments in order to identify past marketing failure and future marketing opportunities. Even small differences can add up to major marketing insights. A prime concept in marketing is *penetration*, the proportional extent to which one's product or service has actually sold in a targeted market (usually a set of demographically defined households). Using penetration measures is the standard way of exploring market overages and underages.

Figure 2 (page 8) is a rearrangement of Figure 1's data with penetration measurement in mind. Instead of two sets of bars representing cluster-by-cluster percentages in the County and PGCC student body, there is only one set which directly relates a cluster's student numbers as a percentage of its total County household numbers. By assuming one student per household (safe in vast majority of cases), this percentage then becomes equivalent to PGCC's market penetration of that cluster -- i.e., For what proportion of Cluster X's households has PGCC provided at least one college course experience from 1984-1990?[3] Figure 2 also shows an extra set of bars representing the rating of each cluster on a socio-economic status scale.[4] We added this data because of a suspicion that whatever County-to-student cluster biases our penetration analysis discovered might be social class related.

PGCC's five year County-wide household penetration rate measured in numbers of credit/non-credit students per household was .34, or put another way, upwards of over a third of all County households sent PGCC a student of some description between 1984-1990. Individual cluster penetration rates varied widely around this mean, from a high 43 percent in Rural Development (County Index 125)[5] down to only 22 percent (Index 66) in Blue Collar Blacks. Such a broad variation is only to be expected, but what might be considered unexpected is how little the cluster rank-ordering of Figure 2 resembles that of Figure 1. In fact, the cluster we saw rating among the highest in terms of student body proportional share we now find ranking the very lowest on PGCC cluster market penetration!

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[3] Three clusters have been dropped in this figure. Asian Plus and Town & Gown are too small to generate stable penetration estimates. And Fort George is a special marketing case: PGCC maintains a reserved extension center on the Air Force Base for training programs tailored to military career needs.

[4] The SES Scale was built out of original Census tract z-scores for medium income, percent white collar employed and percent college graduate, with County-wide results set to 100.

[5] Indexing unit data to the absolute value of a total market is the typical way of reporting statistics in the marketing world since gauging relative tendencies among a set market segment is generally considered more important than fixing submarket absolute values. The formula for indexed values is simple: I = 100* (segment value/market value). This sets the index value as a percentage of the reference value. Hence, one could interpret a 125 index value for Rural Development penetration rate as 125 percent of the County's 34 percent rate.

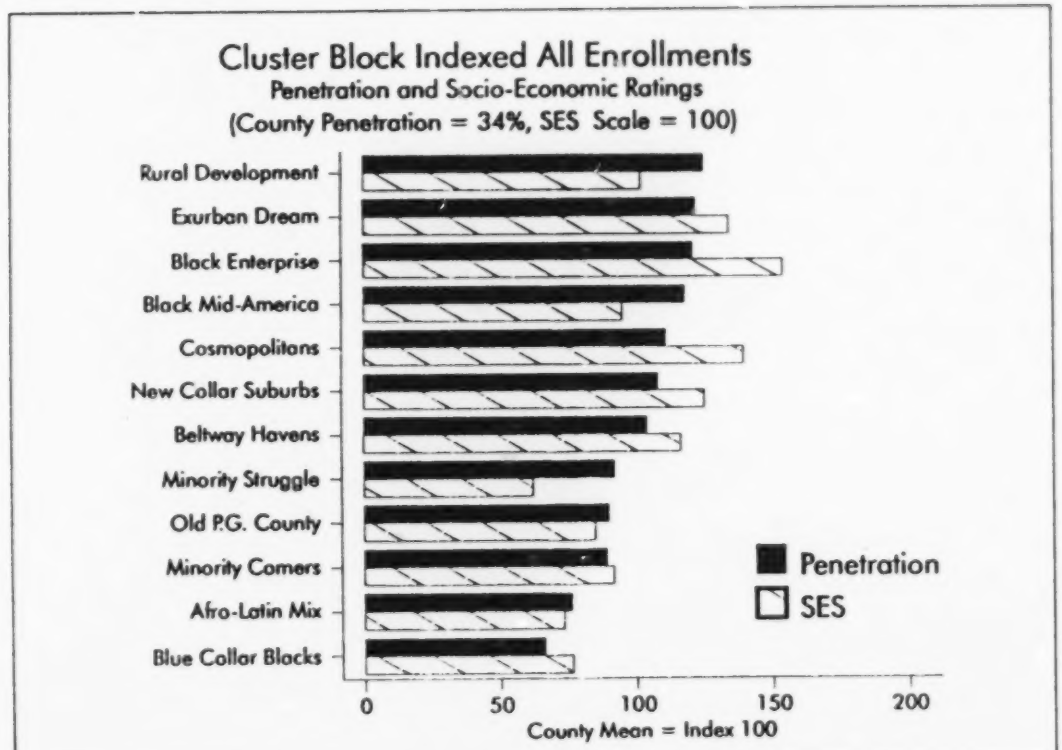
Cluster Block Indexed All Enrollments
Penetration and Socio-Economic Ratings
(County Penetration = 34%, SES Scale = 100)
Rural Development
Exurban Dream
Black Enterprise
Black Mid-America
Cosmopolitans
New Collar Suburbs
Beltway Havens
Minority Struggle
Old P.G. County
Minority Corners
Afro-Latin Mix
Blue Collar Blacks
Penetration
SES
0
50
100
150
200
County Mean = Index 100

Figure 2

The SES bars help us to understand what is going on here. For Figure 2 shows a clear correlation between SES scale rating and penetration -- in general, the more upscale the cluster the higher the penetration level (r^2=.51). This makes good sociological sense; study after study has concluded that college orientation is strongly and positively linked to social status. But how can this be, given our earlier discovery that, cluster-wise, PGCC's student body closely resembles the general population of the County? Is PGCC succeeding in its basic educational mission or isn't it?

To answer this question, we must glance back at Figure 1. There we quickly see that while the student cluster-County cluster parallel was good, it was not perfect. Upscale clusters did tend to show somewhat larger student proportions than County proportions (e.g., Black Enterprise: students 5.2%, County 4.8%) while for downscale clusters the reverse was true (e.g., Blue Collar Blacks: students 10.2%, County 13.8%). What we learn from Figure 2 is that these seemingly small discrepancies systematically derive from large SES-linked PGCC penetration rate differences among the County clusters. It is just that the penetration rate differences we have discovered prove insufficiently great to seriously compromise educational access and to convert large downscale County clusters into small student clusters and small upscale County clusters into large student clusters. A rough democratic proportionality continues to characterize PGCC's student body despite countervailing market forces.

Nevertheless, the linked social status-educational penetration finding holds outstanding implications for both College basic mission fulfillment and College general marketing strategy, and for ways in which they might be weighed in enrollment management decision-making. Consider the two main approaches to increasing market share we mentioned earlier: market inflation (selling more to the same sort of people who have always bought) and market broadening (selling to new people from groups with historically low purchase rates). In the light of our penetration rate finding, which of these would make the best standing market strategy for PGCC?

- Target the more upscale clusters in student recruitment campaigns. These are the proven disproportional sources of our student body. And they are already oriented toward pursuing higher education so they are primed to respond readily to our appeals.

  - *But: Targeting upscale clusters seems educationally elitist. Furthermore, we may already have reached saturation level among these groups -- penetration rates are not infinitely expandable upwards. And there is the added problem of competition from four-year schools which tend to concentrate their student recruitment efforts here.*

- Target the lower middle and downscale clusters with more vigor. Their past enrollment rates have been low, so among them is where the greatest opportunity for expansion lies. And, we will be reinforcing our basic mission in the bargain.

- *But: Penetration rates among lower scale clusters have been traditionally low* because *these are just the social components which are the least college oriented. Therefore, reaching them effectively will require more effort and resources while the risk of failure will remain high.*

Fortunately, as a practical matter, PGCC will not have to resolve these issues in any once-and-for-all sense. Enrollment management decision-making in the real world is not, and should not be, a matter of creating and following a rigid, comprehensive plan governed by a single ideology or institutional objective. The complex nature of the modern community college and its environment requires sensitivity to the diverse needs and expectations of multiple constituencies and the flexibility to adjust to rapidly changing demographic and economic circumstances.

While it should always keep the above "great issues" in mind, PGCC's normal course will lie in identifying specific program areas needing enrollment augmentation and in exploiting concrete opportunities for recruitment of students from particular social components. Whether the College ends up leaning toward a market inflating or market broadening plan will depend upon the evidence of the moment. The great strength of a geo-demographic analysis system like PG-TRAK[90] is that it can systematically develop the evidence on enrollment needs by program and student type and directly convert its findings into a targeted recruitment campaign. The remainder of this article focuses on practical cluster targeting.

Market Analyzing Student Clusters

Credit vs. Non-credit Course Markets. Broadly, community colleges offer two very different types of educational services -- credit courses arranged into academic or vocational programs for those seeking formal educational or career-related credentials, and non-credit or continuing education courses for those looking only for personal enrichment or occasional, informal skills-upgrading. Are these really two different markets from a demographic perspective? Would a campaign to stimulate Con Ed enrollments aim at a different set of households from one hoping to up credit student enrollments?

The table on page 11 shows the results of an analysis of 1985-1990 credit and non-credit students sorted by cluster block. Two measures of customer disproportionality are used. The first is one already encountered -- student household penetration, the percentage of households with a member signed up for at least one PGCC course 1985-1990. The second is household course generation, the mean number of courses per household, a supplementary volume measure of service utilization. Individual cluster values are indexed to all-Cluster results.[6]

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[6] Non-credit student penetration measurement excludes students solely enrolled in senior citizens-only courses, organization contract courses and special population courses. Similarly, no courses from seniors-only, contract and special population categories were used to calculate non-credit courses per household.

Credit vs. Non-Credit Cluster Markets
(Indexed Values)

Cluster Block	Credit		Non-Credit	
	Student Household Penetration	Number of Courses per Household	Student Household Penetration	Number of Courses per Household
Exurban Dream	146	128	151	119
Rural Development	140	132	101	119
Black Mid-America	132	129	122	111
Beltway Havens	120	100	123	110
Black Enterprise	114	122	118	122
Fort George	141	214	60	61
New Collar Condos	104	104	122	111
Cosmopolitans	93	81	127	137
Old P.G. County	76	74	100	103
Minority Corners	85	89	77	87
Minority Struggle	79	92	83	92
Afro-Latin Mix	62	65	75	84
Blue Collar Blacks	56	68	52	62
Town & Gown	44	52	77	81
Asians Plus	34	37	79	79
All Clusters (Raw Value)	**17.9%**	**94**	**19.1%**	**24**

Table 2

Our basic finding is that PGCC's established credit and non-credit markets are geo-demographically very similar. The great majority of cluster blocks register either disproportionately high enrollment levels in both credit and non-credit courses (top grouping -- conventional upscale suburban) or disproportionately low levels (bottom grouping -- mostly minority mid- to downscale inner suburban). Four clusters, however, did show a distinct leaning. Fort George's past enrollments strongly fell on the credit side, a function of the military's policy of subsidizing career-related credit courses only. Three other clusters discernably favored non-credit courses. Two of these feature special concentrations of the late middle-aged and senior citizens, many of who view education as recreation (Cosmopolitans and Old P.G. County), and two of the three (New Collar Condos and Cosmopolitans) are heavily weighted with college degree holders long past their undergraduate days.

Targeting for Credit Student Recruitment. Community colleges which have a geo-demographic system like PG-TRAK[90] in place may plan household-targeted credit student recruitment campaigns with the broadest or narrowest of focuses -- from stimulating credit enrollment generally (for example, picking the top six clusters in Table 2) down to searching for additional Engineering 101 sign-ons. Once a representative credit student sample has been cluster-encoded, the only limit in target identification is the level of comprehensiveness and detail characterizing the student archive data.

Table 3 below illustrates the use of just a few of the possible credit target indicators available to PGCC's planners.[7] Those chosen for review here all relate in one way or another to a distinction of prime importance to community colleges -- traditional vs. non-traditional students.

The traditional student pattern features starting college immediately upon completing high school, attending with a full-time credit load, majoring in a transfer curriculum as opposed to a vocational one, and usually, although not necessarily, studying the humanities or sciences as opposed to a technical or business subject. On this basis, the prime source of such students in PGCC's recent past have been the conventional white suburbs -- here represented by the top grouping of Exurban Dream, Beltway Havens and Rural Development.

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[7] The target indicators for Table 3 were constructed as follows: Mostly Full-time students were those who elected to pursue 12 credit hours or more during at least half of the school terms they attended; the overall 14 percent is lower than the typical PGCC fall semester 25 percent because students' summer terms and terms spent largely on non-regular credit developmental course work were included. The Transfer/Vocational Program Ratio was calculated on a cluster block level basis: percent of credit students in any transfer curriculum divided by percent of students in any vocational curriculum. Arts & Science Students equals the percent of a cluster block's students signed up for a transfer curriculum within the Arts and Science division. Entrance Timing is a three-part percentage variable based upon the number of years after high school graduation a student began attending PGCC; HS Graduation -- percent before (concurrent students), immediately after or within a year of high school graduation date; 2-9 Years Post -- with a period of between 2 to 9 years after graduation; 10+ Years Post -- ten or more years following graduation.

Selected Credit Student Target Indicators (Indexed Values)

Cluster Blocks	Full-Time Students	Transfer/ Occupational Program Ratio	Arts & Science Programs	Entrance Timing: High School Graduates	Entrance Timing: 2-9 Years After Graduation	Entrance Timing: 10+ Years After Graduation
Exurban Dream	116	128	112	113	84	96
Beltway Havens	137	125	120	117	88	83
Rural Development	102	107	102	115	78	98
Asians Plus	228	187	90	117	57	117
Cosmopolitans	127	133	103	108	86	101
Black Enterprise	100	113	108	108	75	114
Fort George	55	123	110	27	147	182
Town & Gown	98	229	192	58	214	48
New Collar Condos	93	107	92	88	120	99
Old P.G. County	102	111	133	88	119	101
Black Mid-America	89	89	103	105	91	101
Minority Struggle	87	70	85	104	102	90
Afro-Latin Mix	107	92	92	96	114	92
Blue Collar Blacks	95	82	82	89	117	101
Minority Corners	80	97	98	85	114	112
All Clusters (Raw Values)	**14%**	**1.07**	**6%**	**46%**	**28%**	**25%**

Table 3

The second grouping of elite Black Enterprise and the sophisticated, inner-suburban Cosmopolitans and Asians Plus clusters also sent PGCC disproportions of traditional students, but also proved to be a disproportionate source of adults returning to college for job-related skill upgrading and personal enrichment. The third grouping, too, favored transfer programs and, in two out of three cases, the Arts and Sciences as subject matter; but the disproportionately delayed entry students of Fort George, Town & Gown and New Collar Condos (three clusters made up mainly of young adults without children who either worked full-time or studied full-time but not at PGCC) typically attend PGCC on a part-time basis.

With one exception (Old P.G. County, with its own peculiar pattern), the remaining cluster blocks shown in Table 3 were more likely to contribute non-traditional than traditional students to PGCC's student body. The large family minority clusters Black Middle America and Minority Struggle did tend to send more straight-from-high school students than delayed entry students but proved vocational program oriented. Finally, the poorest source of traditional students proved to be the Afro-Latin Mix/Blue Collar Blacks/Minority Comers grouping. These minority neighborhoods feature young singles and starter families. Most PGCC students from the last group were vocationally-oriented working persons out of high school for several years searching for ways to improve their job prospects.

Targeting for Non-Credit Student Recruitment. Geo-demographic-driven student recruitment works equally well on the non-credit side. The only real difference is that there are fewer educational dimensions to measure -- few formal programs or curricula and few performance or outcome standards. What remains to be tracked, in the main, is course subject matter popularity. On behalf of PGCC's Continuing Education Division, a few years ago the Office of Institutional Research and Analysis reviewed all non-credit courses given at the College since 1985 and created a forty-fold scheme for categorizing Con Ed offerings by broad subject matter themes, in effect informal non-credit curricula.

The following table presents the level of course taking activity by cluster block for a selected set of nine Con Ed course themes, chosen as representative of the whole sorting system: Lifestyle -- courses on beauty and fashion, cooking, antiques and home decorating, arts and crafts, New Age philosophies and fortune-telling, etc.; Life Issues -- self-help courses on stress management and addictions, forums on personal and family concerns like sexual identity, parenting, etc.; Personal Finance --courses on household accounting, personal investment and tax strategies, etc.; Small Business Concerns -- courses on small business management, start-up opportunities, legal and tax issues, etc.; Corporate Management -- courses on corporate managerial strategies and techniques; Hi-Tech -- courses on personal computers and computer software, photographic techniques, the technical aspects of film-making, radio and television production; New Collar Trades -- courses on new technical and lesser professional trades like hospitality services, radiography, etc.; Office Technology -- secretarial training courses and courses on office management skills like bookkeeping; and Traditional Trades and Crafts --both job- and home handyman-oriented courses on plumbing, auto repair, electrical wiring, etc.

Selected Continuing Education Market Indicators

(Indexed Values)

Cluster Blocks	Life Style	Life Issues	Personal Finance	Small Bus	Corp Mgmt	Hi-Tech	New Collar Trades	Office Tech	Traditional Trades/ Crafts
Exurban Dream	146	116	140	114	120	103	139	98	121
Black Mid-America	114	99	102	130	116	116	108	112	104
New Collar Condos	130	96	110	102	101	104	93	95	107
Black Enterprise	95	94	113	147	102	100	99	81	78
Beltway Havens	103	132	119	97	107	96	135	91	128
Asians Plus	158	267	175	70	77	138	127	40	32
Cosmopolitans	109	132	107	68	51	85	80	59	74
Afro-Latin Mix	63	116	60	70	74	91	85	95	108
Minority Comers	67	67	65	73	91	95	83	113	99
Blue Collar Blacks	60	84	78	87	86	103	73	110	77
Minority Struggle	58	99	86	99	94	116	83	185	88
Rural Development	82	76	98	107	117	86	92	63	94
Fort George	64	258	13	22	173	51	118	135	60
Old P.G. County	93	96	69	65	87	82	105	77	97
Town & Gown	75	0	0	33	41	35	151	48	89
All Clusters (Raw percent)	**11**	**3**	**4**	**12**	**8**	**7**	**7**	**11**	**13**

Table 4

In Table 4, course theme popularity in a cluster is measured in terms of the percentage of all cluster non-credit enrollments grouped under the theme, indexed to the all-cluster percentage.[8]

Once again we have grouped cluster blocks according to similarities of score across marketing indicators. In the first grouping -- consisting of the two elite outer suburban CBs plus the socially striving mid-scale CBs New Collar Condos and Black Middle America -- we find above average course-taking for all themes represented in Table 4. But particularly noticeable is the popularity of Lifestyle, Personal Finance, Small Business and Corporate Management offerings among them.

The second grouping --two inner-suburban sophisticate CBs plus aging Beltway Havens --shares enthusiasm for Lifestyle courses (adding a special liking for Personal Issues offerings) but parts company with its social class peers in Group I when it comes to the economic themes, showing a high degree of interest in Personal Finance but not in career-related Small Business and Corporate Management courses.

In sharp contrast to both, Group III (all lower mid- to downscale minority CBs) shows almost no interest in either personal enrichment or white collar economic themes. In fact, the only courses drawing significant attention from Group III are those offering secretarial training which are avoided by most other CBs.

To us, this is a bit puzzling -- not that less middle class students should be less attracted to Lifestyle and financial courses but that they should disproportionately forego opportunities to develop work-related knowledge and skills through any courses save those dealing with the office. Even blue collar classes fail to draw Group III's at enrollment rates any greater than those for the upper middle class CBs who probably approach these courses mostly from a do-it-yourself perspective. This may be the revelation of a real marketing opportunity.

The last group presents a miscellany of responses to PGCC non-credit course offerings. Rural Development, the lower midscale exurbs, somewhat resembles entrepreneurial Group I in its disproportionate Small Business and Corporate Management course-taking but manifests no interest in Lifestyle offerings. Fort George and Town & Gown students tend to be drawn to various but different job-related courses while Old P.G. County manifests an average or somewhat below-average interest level in just about everything.

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[8] Excluded from the percentage base are all seniors-only courses, all contracted employee training programs, and all special programs for handicapped children run under the auspices of the Continuing Education division.

Conclusions

As the above targeting exercises indicate, the public does tend to respond to a community college's educational services based upon factors of social class, ethnicity, lifestyle and lifecycle which can be estimated for individual households from data on neighborhood type. Therefore, an institution which has the capability of analyzing its student data files geo-demographically is well positioned to rationalize and systematize its student recruitment activity and to realize real efficiencies and savings through targeted rather than indiscriminate contact operations.

Prince George's Community College is in the process of reintegrating its student recruitment efforts around the principles of modern market segmentation. The new approach will be monitored and implemented using the powerful enrollment management software EMAS+™.[9] PG-TRAK[90], directly incorporated into the segmentation module of the software, will provide the critical market analytic and contact targeting component. Trial runs suggest grounds for optimism. One mail brochure pilot project using a cluster identified list of 5,000 County households indicated a 3.4 percent enrollment response rate for targeted households compared with a .3 percent sign-on for non-targeted households.

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[9] Enrollment Management Action System, Version 5.1, The Noel-Levitz Center for Enrollment Management, Iowa City, Iowa.